

Title (en)

HIGH-STRENGTH STEEL PIPE FOR LINE PIPE HAVING EXCELLENT HYDROGEN-INDUCED CRACKING RESISTANCE, HIGH-STRENGTH STEEL PLATE FOR LINE PIPE USING SAME, AND METHOD FOR MANUFACTURING SAME

Title (de)

HOCHFESTES STAHLROHR FÜR LEITUNGSROHR MIT HERVORRAGENDER BESTÄNDIGKEIT GEGEN WASSERSTOFFINDUZIERTER RISSBILDUNG, HOCHFESTES STAHLBLECH FÜR EIN LEITUNGSROHR DAMIT UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

TUYAU D'ACIER À HAUTE RÉSISTANCE POUR TUYAU DE CANALISATION AYANT UNE EXCELLENTE RÉSISTANCE À LA FISSURATION INDUITE PAR HYDROGÈNE, TÔLE D'ACIER À HAUTE RÉSISTANCE POUR TUYAU DE CANALISATION L'UTILISANT ET SON PROCÉDÉ DE FABRICATION

Publication

**EP 2832879 A1 20150204 (EN)**

Application

**EP 13768001 A 20130329**

Priority

- JP 2012079554 A 20120330
- JP 2013059617 W 20130329

Abstract (en)

Steel pipe for high strength line pipe use excellent in hydrogen induced crack resistance which can prevent cracking at the surface layer of steel pipe even if the ratio of thickness and outside diameter is 0.035 or more, characterized in that it has a predetermined chemical composition, has a maximum hardness of a surface layer region from the topmost surface of two front and back plate surfaces down to depth of 5 mm of 300Hv or less, and has a total fraction of polygonal ferrite and deformed ferrite with an aspect ratio of 3 or more at the surface layer region from the topmost surface of the two front and back plate surfaces down to depth of 5 mm of 0.1 to 20%.

IPC 8 full level

**C22C 38/00** (2006.01); **C21D 8/02** (2006.01); **C22C 38/12** (2006.01); **C22C 38/58** (2006.01)

CPC (source: EP)

**C22C 38/00** (2013.01); **C22C 38/001** (2013.01); **C22C 38/002** (2013.01); **C22C 38/005** (2013.01); **C22C 38/02** (2013.01); **C22C 38/04** (2013.01); **C22C 38/06** (2013.01); **C22C 38/08** (2013.01); **C22C 38/12** (2013.01); **C22C 38/14** (2013.01); **C22C 38/16** (2013.01); **C22C 38/18** (2013.01); **C22C 38/22** (2013.01); **C22C 38/24** (2013.01); **C22C 38/26** (2013.01); **C22C 38/28** (2013.01); **C22C 38/40** (2013.01)

Cited by

EP3159418A1; EP3561106A4; US2022042131A1; EP3686304A4; US11548041B2; US11548042B2; EP3816311A4

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2832879 A1 20150204**; **EP 2832879 A4 20160113**; **EP 2832879 B1 20191120**; BR 112014019281 A2 20170620; BR 112014019281 A8 20170711; CN 104024461 A 20140903; CN 104024461 B 20160406; JP 5392441 B1 20140122; JP WO2013147197 A1 20151214; KR 101615842 B1 20160426; KR 20140116913 A 20141006; WO 2013147197 A1 20131003

DOCDB simple family (application)

**EP 13768001 A 20130329**; BR 112014019281 A 20130329; CN 201380004638 A 20130329; JP 2013059617 W 20130329; JP 2013533435 A 20130329; KR 20147022203 A 20130329